

IN THE CLAIMS

Please **amend** the claims as indicated:

1-11. (cancelled)

12. (new) A method comprising:

associating an error log with an enterprise-class environment, wherein the error log records faults that are detected in a hierarchy of data storage operations in a computer system, and wherein the error log attributes a single root cause to faults in multiple data storage operations in the computer system;

passing an identity of an event causing failure through a chain of failing requests until the identity of the event causing failure reaches an originator of a request for data from one or more of the hierarchy of data storage operations, wherein the chain of failing requests, which is caused by an error in a physical storage device, is promulgated through the hierarchy of data storage operations in an upward hierarchical manner from the physical storage device to the originator of the request for data; and

based on the identity of the event, determining, by the originator of the request for data, an error event and a storage device that must be repaired for each detected failure, wherein multiple errors, in the hierarchy of data storage operations, that are caused by a single fault are diagnosed to a single fault.

13. (new) The method of claim 12, further comprising:

adding a unique identifier to the error log, wherein the unique identifier identifies a particular event that is capable of causing an Input/Output service to fail in the hierarchy of data storage operations, and wherein the error log contains information that details a detected fault to enable service personnel to repair a root-cause of the detected fault.

14. (new) The method of claim 13, further comprising:

using the unique identifier as part of a message, to the originator of the request for data, indicating that a service must be failed due to the error, wherein the service is provided by a component in a virtualization subsystem, wherein the virtualization subsystem is a software stack

that manages the hierarchy of data storage operations, wherein the hierarchy of data storage operations includes controlling a Redundant Array of Inexpensive Disks (RAID) storage device, virtualizing memory storage, flash copying of data, and caching of data.

15. (new) The method of claim 14, further comprising:

establishing a criticality order for applications that use data from the physical storage device; and

in response to a fault in the physical storage device being repaired, restoring applications in order of criticality, wherein a most critical application is restored first.

16. (new) A tangible computer readable medium embodying computer readable instructions that are configured for:

associating an error log with an enterprise-class environment, wherein the error log records faults that are detected in a hierarchy of data storage operations in a computer system, and wherein the error log attributes a single root cause to faults in multiple data storage operations in the computer system;

passing an identity of an event causing failure through a chain of failing requests until the identity of the event causing failure reaches an originator of a request for data from one or more of the hierarchy of data storage operations, wherein the chain of failing requests, which is caused by an error in a physical storage device, is promulgated through the hierarchy of data storage operations in an upward hierarchical manner from the physical storage device to the originator of the request for data; and

based on the identity of the event, determining, by the originator of the request for data, an error event and a storage device that must be repaired for each detected failure, wherein multiple errors, in the hierarchy of data storage operations, that are caused by a single fault are diagnosed to a single fault.

17. (new) The tangible computer readable medium of claim 16, wherein the computer readable instructions are further configured for:

adding a unique identifier to the error log, wherein the unique identifier identifies a particular event that is capable of causing an Input/Output service to fail in the hierarchy of data

storage operations, and wherein the error log contains information that details a detected fault to enable service personnel to repair a root-cause of the detected fault.

18. (new) The tangible computer readable medium of claim 17, wherein the computer readable instructions are further configured for:

using the unique identifier as part of a message, to the originator of the request for data, indicating that a service must be failed due to the error, wherein the service is provided by a component in a virtualization subsystem, wherein the virtualization subsystem is a software stack that manages the hierarchy of data storage operations, wherein the hierarchy of data storage operations includes controlling a Redundant Array of Inexpensive Disks (RAID) storage device, virtualizing memory storage, flash copying of data, and caching of data.

19. (new) The tangible computer readable medium of claim 18, wherein the computer readable instructions are further configured for:

establishing a criticality order for applications that use data from the physical storage device; and

in response to a fault in the physical storage device being repaired, restoring applications in order of criticality, wherein a most critical application is restored first.